



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:

Confirmation No: 9098

Foti *et al.*

Group Art Unit: 1656

Application Serial No.: 10/530,658

Examiner: Lee, Jae W.

Filed: April 7, 2005

Attorney Docket No.: 100506-00025

For: Photoprotein with Improved Bioluminescence

**RESPONSE TO RESTRICTION AND ELECTION OF SPECIES REQUIREMENT**

Mail Stop AMENDMENT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

November 29, 2007

Sir:

This paper is filed in response to the Second Restriction Requirement and Election of Species Requirement dated October 5, 2007, in connection with the above-identified patent application. The period of response is extended one (1) month from November 5, 2007, to December 5, 2007, by the enclosed one (1) month Petition for Extension of Time.

The Restriction Requirement asserted that the claims are directed to patentably distinct species and required Applicants to elect the following:

(1) A single disclosed species of amino acid substitution position from: "A chimeric photoprotein comprising one or more amino acid substitutions at positions 55, 66, 67, 73, 74, 75, 78, 83, 84, 87, 89 and 94 of Obelin sequence;"

and

(2) A single disclosed SEQ ID No. from: "A chimeric photoprotein encoded by the isolated nucleic acid molecule of SEQ ID No: 4 or SEQ ID No: 5"

The Second Restriction Requirement clarified that the "election of all substitution positions in the Obelin sequence is non-compliant with the required species election" and that "Applicants are required to elect a single species from the substitution positions" (Office Action).

Applicants hereby provisionally elect the following, with traverse:

(1) A chimeric photoprotein comprising amino acid substitutions at the 55 position of the Obelin sequence.

and

(2) A chimeric photoprotein encoded by the isolated nucleic acid molecule of SEQ ID No. 4.

Applicants reserve the right to file one or more divisional applications to the non-elected subject matter.

Applicants respectfully submit that the restriction/election of species requirement is improper, because the claimed photoproteins, which may have amino acid substitutions at different positions and different SEQ ID Nos., do not have different effects. In fact, Applicants submit that all of the mutations encompassed by the claimed photoprotein are located in the region comprised between the first two calcium binding sites, which was found by Applicants to be involved in bioluminescence regulation (see specification, page 4, lines 1-3). As such, Applicants submit that the claimed photoproteins are "so linked as to form a general inventive concept" (PCT Rule 13.1). Further, Applicants submit that the restriction/election of species requirement is improper, because according to the Manual of Patent Examining Procedure, "the Commissioner... will permit a reasonable number of such nucleotide sequences to be claimed in a single application" (MPEP § 2434).

Further, Applicants note the Examiner's assertion that "the different sequences comprising, at least one distinct mutation, or different combinations of 2 or more substitutions, at different locations have different effects" (Office Action dated May 29, 2007, page 3, 1<sup>st</sup> paragraph). As such, Applicants respectfully submit that it is improper to require Applicants to select a single species from a single substitution position.

In view of the Applicants' above elections, Applicants respectfully submit that the Restriction Requirement and the Election of Species Requirement have been satisfied. Applicants submit that claims 1-24 read on the elected invention and the elected species. Accordingly, Applicants respectfully request examination of claims 1-24 on the merits.

Please charge any fee deficiency or credit any overpayment with respect to this paper to Deposit Account Number 01-2300, referencing Attorney Docket Number 100506-00025.

Respectfully submitted,



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